

IN THE CLAIMS:

This listing of claims will replace all prior versions, and listings, of claims in the application.

Claims 1-35 (Canceled)

36. (New) A method for enhancing the taste of a beer comprising:

producing a finished base beer, wherein the finished beer is chosen from stout beer, pilsner beer, light beer, extra light beer, medium strength beer, or full strength beer;

adding a mineral additive to the finished base beer;

wherein the mineral additive comprises:

group A minerals: calcium from 5.9 mg/L to 236 mg/L, and magnesium from 1.3 to 52mg/L;

group B minerals: phosphorus from 3.0 to 360mg/L, potassium from 12mg/L to 480mg/L, silicon at 0.075mg/L to 30mg/L, sodium at 0.8 mg/L to 32mg/L and chlorine at 0.9mg/L to 36mg/;

group C minerals: boron from 0 to 76 µg/L, chromium from 0 to 0.4 µg/L, cobalt from 0 to 0.4 µg/L, copper from 0 to 17.2 µg/L, iodine from 0 to 5.2 µg/L, lithium from 0 to 1.6 µg/L, manganese from 0 to 1.6 µg/L, molybdenum from 0 to 2.0 µg/L, nickel from 0 to 2.0 µg/L, selenium from 0 to 136 µg/L, tin from 0 to 01.6 µg/L, vanadium from 0 to 0.12 µg/L and zinc from 0 to 104 µg/L;

group D minerals: iron 0 to 20 µg/L;

wherein the mineral additive includes soluble compounds of the minerals of the groups A, B, C, and D;

wherein the concentration ranges of the minerals of the groups A, B, C, and D of the mineral additive are the concentration of these minerals added to the finished base beer; and

wherein the mineral additive enhances taste characteristics of the finished base beer.

37. (New) The method according to claim 36, wherein the finished base beer is previously diluted with water before adding the mineral additive to between 0.5% and 90% of its original strength.

38. (New) The method according to claim 36, wherein at least some of the minerals of groups A, B, C and D is added in dry form.

39. (New) The method according to claim 36, wherein the finished base beer is a stout beer and the mineral additive comprises:

group A minerals: calcium from 70mg/L to 143 mg/L, and magnesium from 15 mg/L to 32 mg/L;

group B minerals: phosphorus 36 mg/L to 360 mg/L, potassium from 144 mg/L to 288 mg/L, silicon at 9 mg/L to 18 mg/L, sodium at 9 mg/L to 20 mg/L and chlorine at 11 mg/L to 22 mg/L;

group C minerals: boron from 23 to 46 µg/L, chromium from 0.12 to 0.24 µg/L, cobalt from 0.12 to 0.24 µg/L, copper from 5 to 11 µg/L, iodine from 1.5 to 3.5 µg/L, lithium from 0.45 to 1.00 µg/L, manganese from 0.45 to 1.00 µg/L, molybdenum from 0.6 to 1.2 µg/L, nickel from 0.6 to 1.2 µg/L, selenium from 40 to 82 µg/L, tin from 0.45 to 1.00 µg/L, vanadium from 0.035 to 0.075 µg/L and zinc from 31 to 62 µg/L; and

group D minerals: iron 6 to 12 µg/L.

40. (New) The method according to claim 36, wherein the finished base beer is a pilsener beer and the mineral additive comprises:

group A minerals: calcium from 188 mg/L to 224 mg/L, and magnesium from 41 mg/L to 50 mg/L;

group B minerals: phosphorus 96 mg/L to 360mg/L, potassium from 380 mg/L to 460 mg/L, silicon at 24 mg/L to 29 mg/L, sodium at 25 mg/L to 31 mg/L and chlorine at 28 mg/L to 35 mg/L;

group C minerals: boron from 60 to 73 µg/L, chromium from 0.3 to 0.4 µg/L, cobalt from 0.3 to 0.4 µg/L, copper from 13 to 17 µg/L, iodine from 4 to 5 µg/L, lithium from 1.2 to 1.6 µg/L, manganese from 1.2 to 1.6 µg/L, molybdenum from 1.5 to 2.0 µg/L, nickel from 1.5 to 2.0 µg/L, selenium from 40 to 82 µg/L, tin from 1.2 to 1.6 µg/L, vanadium from 0.09 to 0.12 µg/L and zinc from 83 to 99 µg/L; and

group D minerals: iron 16 to 19 µg/L.

41. (New) The method according to claim 36, wherein the finished base beer is a light beer and the mineral additive comprises:

group A minerals: calcium from 11 mg/L to 21 mg/L, and magnesium from 2.6 to 4.6 mg/L;

group B minerals: phosphorus 6 mg/L to 360 mg/L, potassium from 24 mg/L to 42 mg/L, silicon at 1.5 mg/L to 2.7 mg/L, sodium at 1.5 mg/L to 2.8 mg/L and chlorine at 1.8 mg/L to 3.2 mg/L;

group C minerals: boron from 3.5 to 7 µg/L, chromium from 0.02 to 0.035 µg/L, cobalt from 0.02 to 0.035 µg/L, copper from 0.8 to 1.6 µg/L, iodine from 0.25 to 0.5 µg/L, lithium from 0.08 to 0.14 µg/L, manganese from 0.08 to 0.14 µg/L, molybdenum from 0.1 to 0.18 µg/L, nickel from 0.1 to 0.18 µg/L, selenium from 6.8 to 12 µg/L, tin from 0.08 to 0.14 µg/L, vanadium from 0.006 to 0.011 µg/L and zinc from 5 to 9.5 µg/L; and

group D minerals: iron 1 to 1.8 µg/L.

42. (New) The method according to claim 36, wherein the finished base beer is an extra light beer and the mineral additive comprises:

group A minerals: calcium from 23 mg/L to 42 mg/L, and magnesium from 5 to 9.5 mg/L;
group B minerals: phosphorus 12 mg/L to 360 mg/L, potassium from 48 mg/L to 84 mg/L, silicon at 3 mg/L to 5.3 mg/L, sodium at 3.2 mg/L to 5.6 mg/L and chlorine at 3.6 mg/L to 6.3 mg/L;
group C minerals: boron from 7.5 to 14 µg/L, chromium from 0.04 to 0.07 µg/L, cobalt from 0.04 to 0.07 µg/L, copper from 1.7 to 3.2 µg/L, iodine from 0.5 to 1.0 µg/L, lithium from 0.15 to 0.3 µg/L, manganese from 0.15 to 0.3 µg/L, molybdenum from 0.2 to 0.35 µg/L, nickel from 0.2 to 0.35 µg/L, selenium from 13 to 24 µg/L, tin from 0.15 to 0.3 µg/L, vanadium from 0.012 to 0.021 µg/L and zinc from 10 to 19 µg/L; and
group D minerals: iron 1 to 3.5 µg/L.

43. (New) The method according to claim 36, wherein the finished base beer is a medium strength beer and mineral additive comprises:

group A minerals: calcium from 11 mg/L to 23 mg/L, and magnesium from 2.6 to 5 mg/L;
group B minerals: phosphorus 6 mg/L to 360 mg/L, potassium from 24 mg/L to 48 mg/L, silicon at 1.5 mg/L to 3 mg/L, sodium at 1.6 mg/L to 3.2 mg/L and chlorine at 6.8 mg/L to 3.6 mg/L;
group C minerals: boron from 3.5 to 8 µg/L, chromium from 0.02 to 0.04 µg/L, cobalt from 0.02 to 0.04 µg/L, copper from 0.8 to 1.8 µg/L, iodine from 0.25 to 0.5 µg/L, lithium from 0.08 to 0.15 µg/L, manganese from 0.08 to 0.15 µg/L, molybdenum from 0.1 to 0.2 µg/L, nickel from 0.1 to 0.2 µg/L, selenium from 6.8 to 13 µg/L, tin from 0.08 to 0.15 µg/L, vanadium from 0.005 to 0.012 µg/L and zinc from 5 to 10 µg/L; and
group D minerals: iron 1 to 2 µg/L.

44. (New) The method according to claim 36, wherein the finished base beer is a full strength beer and the mineral additive comprises:

group A minerals: calcium from 17mg/L to 36 mg/L, and magnesium from 3.9 to 7.8 mg/L;

group B minerals: phosphorus at least about 9mg/L, potassium from 36 mg/L to 72 mg/L, silicon at 2.2 mg/L to 4.5 mg/L, sodium at 2.4 mg/L to 4.8 mg/L and chlorine at 2.5 mg/L to 5.5 mg/L;

group C minerals: boron from 5.5 to 11.5 µg/L, chromium from 0.03 to 0.06 µg/L, cobalt from 0.03 to 0.06 µg/L, copper from 1.2 to 2.6 µg/L, iodine from 0.3 to 0.8 µg/L, lithium from 0.12 to 0.24 µg/L, manganese from 0.12 to 0.24 µg/L, molybdenum from 0.15 to 0.3 µg/L, nickel from 0.15 to 0.3 µg/L, selenium from 10 to 21 µg/L, tin from 0.12 to 0.24 µg/L, vanadium from 0.009 to 0.02 µg/L and zinc from 7.5 to 16 µg/L; and group D minerals: iron 1.5 to 3 µg/L.

45. (New) The method according to claim 36, wherein the mineral additive comprises:

group A; calcium from 25 to 82 mg/L and magnesium from 6 to 18 mg/L;

group B; potassium from 50 to 180 mg/L, silicon from 0.45 to 1.5 mg/L, sodium from 3 to 30 mg/L, chlorine from 3 to 28 mg/L;

group C; boron from 0 to 0.060 µg/L, chromium from 0 to 0.0005 µg/L, cobalt from 0 to 0.0005 µg/L, copper from 0 and 0.012 µg/L, iodine from 0 to 0.006 µg/L, lithium from 0 to 0.0015 µg/L, manganese from 0 to 0.0015 µg/L, molybdenum from 0 to 0.0015 µg/L, nickel from 0 to 0.0005 µg/L, selenium from 0 to 0.100 µg/L, tin from 0 to 0.0015 µg/L, vanadium from 0 to 0.1 µg/L and zinc from 0 and 0.100 µg/L; and group D: Iron from 0 to 0.020 µg/L.

46. (New) The method according to claim 36, further comprising separately preparing the group A minerals and adding a buffer or acid to the group A minerals to adjust the pH of the group A minerals.
47. (New) The method according to claim 37, wherein the dilution is between 0.5% and 50%.
48. (New) A method for enhancing the taste of a beer comprising:
providing a finished base beer, wherein the finished beer is chosen from stout beer, pilsner beer, light beer, extra light beer, medium strength beer, or full strength beer;
adding a mineral additive to the finished base beer;
wherein the mineral additive comprises:
group A minerals: calcium from 5.9 mg/L to 236 mg/L, and magnesium from 1.3 to 52mg/L;
group B minerals: phosphorus from 3.0 to 360mg/L, potassium from 12mg/L to 480mg/L, silicon at 0.075mg/L to 30mg/L, sodium at 0.8 mg/L to 32mg/L and chlorine at 0.9mg/L to 36mg/L;
group C minerals: boron from 0 to 76 µg/L, chromium from 0 to 0.4 µg/L, cobalt from 0 to 0.4 µg/L, copper from 0 to 17.2 µg/L, iodine from 0 to 5.2 µg/L, lithium from 0 to 1.6 µg/L, manganese from 0 to 1.6 µg/L, molybdenum from 0 to 2.0 µg/L, nickel from 0 to 2.0 µg/L, selenium from 0 to 136 µg/L, tin from 0 to 01.6 µg/L, vanadium from 0 to 0.12 µg/L and zinc from 0 to 104 µg/L;
group D minerals: iron 0 to 20 µg/L; and
wherein the mineral additive includes soluble compounds of the minerals of the groups A, B, C, and D;

wherein the concentration ranges of the minerals of the groups A, B, C, and D of the mineral additive are the concentration of these minerals that are added to the finished base beer;

wherein the mineral additive enhances taste characteristics of the finished base beer compared with an unmodified finished base beer; and

wherein the finished base beer is diluted between 20% and 90% prior to adding the mineral additive and wherein the mineral additive is added to the finished base beer before gassing with carbon dioxide.

49. (New) The according to claim 36, wherein the finished base beer is diluted between 0.5% and 5% and the mineral additive is added after the finished base beer has been gassed with carbon dioxide.

50. (New) The method according to claim 36, wherein:
phosphorous is provided or partially provided in the form of KH_2PO_4 (monobasic potassium phosphate);
potassium is provided or partially provided in the form of KH_2PO_4 (monobasic potassium phosphate) or KHCO_3 (potassium bicarbonate);
silicon is provided in the form of $\text{Na}_2\text{SiO}_3 \cdot 5\text{H}_2\text{O}$ (sodium metasilicate);
sodium is provided wholly or partially in a form selected from the group consisting of NaHCO_3 (sodium bicarbonate), $\text{Na}_2\text{B}_4\text{O}_7 \cdot 10\text{H}_2\text{O}$ (sodium tetraborate), NaCl (sodium chloride), $\text{Na}_2\text{MoO}_4 \cdot 2\text{H}_2\text{O}$ (sodium molybdate), $\text{Na}_2\text{SeO}_4 \cdot 10\text{H}_2\text{O}$ (sodium selenate), Na_2SeO_3 (sodium selenite), $\text{Na}_2\text{SiO}_3 \cdot 5\text{H}_2\text{O}$ (sodium silicate), Na_2SO_4 and $\text{Na}_2\text{SO}_4 \cdot 10\text{H}_2\text{O}$ (sodium sulphate); and
chlorine is provided wholly or partially in a form selected from the group consisting of NaCl (sodium chloride), KCl (potassium chloride), CaCl_2 (calcium chloride) and MgCl_2 (magnesium chloride).

51. (New) The method according to claim 36, wherein, if present in the finished base beer,

boron is provided wholly or partially in a form selected from one of the groups consisting of $\text{Na}_2\text{B}_4\text{O}_7 \cdot 10\text{H}_2\text{O}$ (sodium tetraborate) and $\text{K}_2\text{B}_4\text{O}_7 \cdot 5\text{H}_2\text{O}$ (potassium tetraborate);

chromium is provided in the form $\text{K}[\text{Cr}(\text{SO}_3\text{H})_2(\text{H}_2\text{O})_2] \cdot 6\text{H}_2\text{O}$ (chromium potassium sulphate);

cobalt is provided wholly or partially in a form selected from one or more of the groups consisting of $\text{CoK}_2(\text{SO}_4)_2 \cdot 6\text{H}_2\text{O}$ (cobaltous potassium sulphate) and $\text{CoSO}_4 \cdot 7\text{H}_2\text{O}$ (cobalt sulphate);

copper is provided wholly or partially in a form selected from one or more of the groups consisting of $\text{CuSO}_4 \cdot 5\text{H}_2\text{O}$ (cupric sulphate) and $\text{CuSeO}_4 \cdot 5\text{H}_2\text{O}$ (cupric selenate);

iodine is provided as (KI) potassium iodide;

lithium is provided wholly or partially in a form selected from one or more of the groups consisting of $\text{Li}_2\text{SO}_4 \cdot \text{H}_2\text{O}$ (lithium sulphate), LiCl (lithium chloride) or $\text{Li}_2\text{SeO}_4 \cdot \text{H}_2\text{O}$ (lithium selenate);

manganese is provided wholly or partially in a form selected from one or more of the groups consisting of $\text{MnSO}_4 \cdot \text{H}_2\text{O}$ (manganous sulphate) $\text{MnCl}_2 \cdot 4\text{H}_2\text{O}$ (manganous chloride);

molybdenum is provided in the form of $\text{Na}_2\text{MoO}_4 \cdot 2\text{H}_2\text{O}$ (sodium molybdate); nickel is provided in the form of $\text{NiSO}_4 \cdot 6\text{H}_2\text{O}$ (nickel sulphate);

selenium is provided wholly or partially in a form selected from one or more of the groups consisting of $\text{Na}_2\text{SeO}_4 \cdot 10\text{H}_2\text{O}$ (sodium selenate), K_2SeO_4 (potassium selenate), MgSeO_4 (magnesium selenate) and Na_2SeO_3 (sodium selenite);

tin is provided in the form of Tin $\text{SnCl}_2 \cdot 2\text{H}_2\text{O}$ (stannous chloride);

vanadium is provided in the form of NH_4VO_3 (ammonium vanadate); and
zinc is provided wholly or partially in a form selected from one or more of the groups
consisting of $\text{ZnSO}_4 \cdot \text{H}_2\text{O}$ and $\text{ZnSO}_4 \cdot 7\text{H}_2\text{O}$ (zinc sulphate).

52. (New) The method according to claim 36, wherein, if present in the finished base
beer, iron is provided in the form of $\text{FeSO}_4 \cdot 7\text{H}_2\text{O}$ (ferrous sulphate).

53. (New) A beer made in accordance with claim 36.